IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

Claims 1-8 (Cancelled).

9. (New) A frequency offset detecting method comprising:

detecting first phase information in a one-symbol difference of phase information for a received known signal;

detecting second phase information in a two-symbol difference of phase information for the received known signal;

determining half a value representing the second phase information; and

averaging a value representing the first phase information with the determined half value.

10. (New) The frequency offset detecting method of claim 9, wherein:

the value representing the first phase information is a difference between a first modulation phase offset and a phase shift detected in the one-symbol difference of phase information; and

the value representing the second phase information is a difference between a second modulation phase offset and a phase shift detected in the two-symbol difference of phase information.

11. (New) The frequency offset detecting method of claim 9, wherein:

the value representing the first phase information is a phase shift detected in a one-symbol difference of phase rotation; and

the value representing the second phase information is a phase shift detected in a two-symbol difference of phase rotation.

12. (New) The frequency offset detecting method of claim 9, wherein:

the value representing the first phase information is a one-symbol difference of phase rotation; and

the value representing the second phase information is a two-symbol difference of phase rotation.

13. (New) A frequency offset detecting apparatus comprising:

a first detector that detects first phase information in a one-symbol difference of phase information for a received known signal;

a second detector that detects second phase information in a two-symbol difference of phase information for the received known signal;

a determination section that determines half a value representing the second phase information; and

an averager that averages a value representing the first phase information with the determined half value.

14. (New) The frequency offset detecting apparatus of claim 13, wherein:

the value representing the first phase information is a difference between a first modulation phase offset and a phase shift detected in the one-symbol difference of phase information; and

the value representing the second phase information is a difference between a second modulation phase offset and a phase shift detected in the two-symbol difference of phase information.

15. (New) The frequency offset detecting apparatus of claim 13, wherein:

the value representing the first phase information is a phase shift detected in a one-symbol difference of phase rotation; and

the value representing the second phase information is a phase shift detected in a two-symbol difference of phase rotation.

16. (New) The frequency offset detecting apparatus of claim 13, wherein:

the value representing the first phase information is a one-symbol difference of phase rotation; and

the value representing the second phase information is a two-symbol difference of phase rotation.

17. (New) A communication terminal apparatus equipped with a frequency offset detecting apparatus, the frequency offset detecting apparatus comprising:

a first detector that detects first phase information in a one-symbol difference of phase information for a received known signal;

a second detector that detects second phase information in a two-symbol difference of phase information for the received known signal;

a determination section that determines half a value representing the second phase information; and

an averager that averages a value representing the first phase information with the determined half value.

18. (New) A base station apparatus equipped with a frequency offset detecting apparatus, the frequency offset detecting apparatus comprising:

a first detector that detects first phase information in a one-symbol difference of phase information for a received known signal;

a second detector that detects second phase information in a two-symbol difference of phase information for the received known signal;

a determination section that determines half a value representing the second phase information; and

an averager that averages a value representing the first phase information with the determined half value.

19. (New) A frequency offset detecting apparatus comprising:

a first subtractor that subtracts a previously held first modulation phase offset from a phase shift, detected in one-

symbol phase shift difference information of a received known signal, to produce a first difference;

a second subtractor that subtracts a previously held second modulation phase offset from a phase shift, detected in two-symbol phase shift difference information of the received known signal, to produce a second difference;

a multiplier that multiplies the second difference by 1/2 to produce a multiplication product; and

an averager that averages the first difference and the multiplication product for an interval to produce an average value.

20. (New) A frequency offset detecting apparatus comprising:

a phase rotation detector that detects phase rotation information of a received known signal;

a first phase detector that detects a first phase shift in a one-symbol difference of the detected phase rotation information;

a second phase detector that detects a second phase shift in a two-symbol difference of the detected phase rotation information;

a calculator that calculates half the value of the second phase shift; and

an averager that averages the first phase shift and the half value of the second phase shift for an interval to produce an average value.

21. (New) A frequency offset detecting apparatus comprising:

a phase rotation detector that detects phase rotation information of a received known signal;

a first subtractor that provides a one-symbol difference of the detected phase rotation information;

a second subtractor that provides a two-symbol difference of the detected phase rotation information;

a calculator that calculates half the value of the two-symbol difference using a complex signal vector calculation;

an averager that averages the one-symbol difference and the half value of the two-symbol difference to produce an average value; and

a phase detector that detects a phase shift from the produced average value.

22. (New) A frequency offset detecting method comprising:

subtracting a previously held first modulation phase offset from a phase shift, detected in one-symbol phase shift difference

information of a received known signal, to produce a first difference;

subtracting a previously held second modulation phase offset from a phase shift, detected in two-symbol phase shift difference information of the received known signal, to produce a second difference;

multiplying the second difference by 1/2 to produce a multiplication product; and

averaging the first difference and the multiplication product for an interval to produce an average value.

23. (New) A frequency offset detecting method comprising:

detecting phase rotation information of a received known signal;

detecting a first phase shift in a one-symbol difference of the detected phase rotation information;

detecting a second phase shift in a two-symbol difference of the detected phase rotation information;

calculating half the value of the second phase shift; and

averaging the first phase shift and the half value of the second phase shift for an interval to produce an average value.

24. (New) A frequency offset detecting method comprising:

detecting phase rotation information of a received known signal;

determining a one-symbol difference of the detected phase rotation information;

determining a two-symbol difference of the detected phase rotation information;

calculating half the value of the two-symbol difference using a complex signal vector calculation;

averaging the one-symbol difference and the half value of the two-symbol difference to produce an average value; and

detecting a phase shift from the produced average value.